

REMARKS/ARGUMENTS

Claims 12, 14, and 15 remain in this application. Claims 16 and 17 are withdrawn.

Rejections under 35 U.S.C § 103(a) over U.S. Patent No. 5,443,652 to Scarola et al.

The '652 patent does not describe a method of cleaning thermoplastic resinous products that includes the use of a vessel having an inner surface and/or a surface of the rotary body having a roughened surface as claimed. In this regard, the Examiner asserts that the '652 patent motivates those skilled in the art to increase abrasiveness by teaching that smaller distances between the wall and tip increases the level of shear created blade which, in turn, increases the level of abrasion on the walls of the vessel, thus making the walls of the vessel abrasive or roughened. We respectfully disagree with the Examiner. The '652 patent teaches that the walls of the container is made from a durable material such as steel, galvanized steel, and preferably stainless steel. The '652 patent describes the high speed mixing action as causing the plastic flakes to collide with each other and the container wall at high speed which abrades the surface of the flakes. The '652 patent never teaches that wear on the container wall is a desirable result of high speed mixing. The '652 patent certainly never teaches or suggests that the walls of the vessel are roughened through use to the range claimed in the present application. Further, the degree of roughness to the container wall and/or surface of the rotary body of the present invention is not a mere side effect of use, as in the '652 patent, but, instead, was carefully determined to provide the desired amount of abrasion to the thermoplastic resinous products.

Moreover, the '652 patent describes using a removable liner on the container wall so as to reduce or eliminate wear on the container wall. The '652 patent certainly provides no teaching to one of skill in the art that a particular range of abrasiveness is desirable. In fact, the '652 patent teaches away from the present invention because one of ordinary skill in the art would read the '652 patent to teach that wear on the container wall should be reduced or eliminated. Therefore, it would not be obvious to adjust the roughness of the surface via routine experimentation to achieve optimum abrasiveness because the '652 patent teaches that wear on the container wall is undesirable.

The Examiner asserts that the Applicants' example and comparative run do not constitute a side-by-side test holding all of the variables constant except for the novel feature of the claimed invention. Applicants respectfully disagree. As described in Example E of the present application, the cleaning device had the inner surface of the vessel and surfaces of the blades roughened to have the irregularity of 200 to 300 μm deep. Comparative Example F was

carried out in the same manner as Example E except that the inner surface of the vessel and surfaces of the agitator blades were not roughened. After cleaning, the crushed pieces in Example E and Comparative Example F were treated in the same manner, as described in Example C. From this comparison of Example E and Comparative Example F, it is apparent that the roughened surfaces in Example E contribute to the removal of foreign matters.

The Examiner also asserts that the process of the '652 patent inherently maintains the water level sufficient to maintain a ratio of crushed pieces and water. Applicants respectfully disagree. The '652 patent does not teach that water is continuously supplied from a plurality of portions of the vessel and drained to keep the water level and ratio of crushed pieces to water constant. Instead, the '652 patent teaches a recirculation system where water is fed into an inlet near the top of the container and the lower part of the container has a conduit for discharge of the water, which is filtered and recirculated to the container. The recirculation system of the '652 patent does not inherently maintain a ratio of crushed pieces to water or maintain a constant water level because the polymer flakes inherently are being removed from the container with a quantity of water.

CONCLUSION

From the foregoing, favorable action in the form of a Notice of Allowance is respectfully requested and such action is earnestly solicited.

The Commissioner is hereby authorized to charge any additional fees which may be required in this application to Deposit Account No. 06-1135.

Respectfully submitted,

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Date: December 22, 2006

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